



# SENIOR ENGINEER SURFACE WATER & UTILITIES JOB DESCRIPTION

Job Title: Senior Engineer

**Surface Water & Utilities**

Pay Grade: 27

FLSA: Non-Exempt

Job Code: EN115

Effective Date: October 2007

Revision Date: October 2008

## NATURE OF WORK

Under limited supervision, performs professional work of considerable difficulty in managing and coordinating design, engineering, development, flood control, stormwater drainage, river management, bridges, utilities, and infrastructure projects for the Public Works Department (PWD).

## ESSENTIAL FUNCTIONS:

*The following duties **ARE NOT** intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

- Plans, coordinates, and manages PWD civil engineering projects to resolve surface water, stormwater, flood control, river management and utilities issues; analyzes issues, develops recommendations, and implements solutions.
- Reviews PWD project plans, specifications, estimates and development applications for conformance with original job instructions and accepted engineering practices; manages and maintains technical project and program databases; monitors compliance with ecological and environmental laws and regulations.
- Assumes technical responsibility for completing and reviewing complete phases or major components of projects, including engineering reports, calculations, plans, contracts, and special assignments in accordance with PWD standards and codes.
- Coordinates the development of project design, plans and grant applications; coordinates the collection and compilation of field data for the design, layout, and construction of infrastructure projects.
- Makes structural and technical engineering analysis of proposed projects; evaluates need for design changes and makes appropriate recommendations; reviews plans for conformity to uniform codes, local ordinances, and State and Federal regulations.
- Inspects and monitors assigned PWD projects; resolves discrepancies between field conditions and design plans; oversees contract administration, tracks and reports compliance and financial information; assures project deliverables meet scope, schedule, cost, and quality requirements.
- Provides hydrologic, hydraulic and engineering analysis for bridges, floodplain delineation, stormwater drainage, river management studies, and property development projects.
- Writes various analytical reports and makes technical estimates of a specialized nature in connection with engineering projects; checks and reviews final technical specifications for submittal to County Engineer.
- Administers Lewis County Comprehensive Flood Hazard Management Plan.
- Supervises and trains assigned staff; prioritizes and assigns tasks and projects; provides direction and guidance in technical processes and procedures.
- Responds to questions from citizens and agencies on PWD projects and plans.
- Coordinates projects, activities and information with other PWD staff, County Departments, contractors, and outside agencies.

**WORKING ENVIRONMENT / PHYSICAL DEMANDS:**

Work is performed in an office environment; work involves light physical demands and frequent use of a personal computer; occasional inspection work is performed outdoors at construction sites and County facilities.

**DISTINGUISHING CHARACTERISTICS:**

This is the fully qualified senior level in the Registered Engineer job series. Incumbents independently perform the full scope of civil engineering duties, with extensive technical knowledge in surface water and utilities, and total responsibility for the completion of assigned civil engineering projects.

**EMPLOYMENT STANDARDS:**

Bachelor's Degree in Civil Engineering or related field; AND four (4) year's professional civil engineering experience.

A valid Driver's License is required. Must be registered as a Professional Engineer with Washington State Board of Registration.

**KNOWLEDGE AND SKILLS:****Knowledge of:**

- County policies and procedures.
- Fundamentals of civil engineering, mathematics and physics.
- Principles of design, construction, and maintenance of public works projects, including water resources, hydraulics and hydrology, and land development.
- Methods, materials, and equipment used in public works construction, maintenance, and repair projects.
- Principles and practices of government project management and methods of evaluating construction contract compliance.
- Federal and State codes and regulations governing civil engineering and public works projects, including Department of Transportation standards, and environmental and ecological compliance regulations.
- Regional environmental protection and enforcement issues and regulatory agency evaluation processes.
- Contract and grant development and management principles.
- Computers and specialized engineering software applications and file management procedures.
- OSHA safety rules and regulations and safety standards applicable to hazardous environments.
- Principles of record keeping and records management.

**Skills in:**

- Analyzing technical issues, evaluating alternatives, and developing solutions based on findings.
- Managing staff, delegating tasks and authority, and assessing and prioritizing multiple tasks and projects.
- Interpreting and applying engineering standards and procedures, Federal and State rules and regulations, and City policies and procedures.
- Applying engineering theory and skills to solve PWD project issues and problems.
- Analyzing and evaluating technical engineering data and construction documentation.
- Checking designs, details, estimates, plans, and specifications of engineering projects.
- Reading, understanding, developing, manipulating, and analyzing engineering information in a variety of computerized data formats.
- Evaluating multidisciplinary environmental issues in a regulatory environment.
- Working effectively with others to develop solutions for public works issues.
- Operating a personal computer utilizing standard and specialized software.
- Establishing and maintaining effective working relationships with other County employees, public officials, and representatives from other local, State, and Federal agencies.
- Communicating effectively verbally and in writing.